

## **REMARKS**

Reconsideration of the application is respectfully requested in view of the above amendment and the following remarks.

### **I. STATUS OF THE CLAIMS**

Claims 1-6, 11-34 and 39 are pending in this application. Claims 11-34 and 39 have been allowed. Claim 1 has been amended. In particular, claim 1 has been amended to further clarify that the oxidation agent containing iodine includes at least one selected from the group consisting of LiIO<sub>3</sub>, CaIO<sub>3</sub>, BaIO<sub>3</sub>, KI, and NH<sub>4</sub>I.

### **II. Rejections under 35 U.S.C § 103**

Initially, Applicants acknowledge with appreciation the Examiner's indication that claims 11-34 and 39 have been allowed, and that claims 3, 5 and 6 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**(i) Claims 1, 2 and 4 have been rejected under 35 U.S.C § 103(a) as being unpatentable over Takahashi et al. (US2002/0180055).**

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (See MPEP 2143.03 and *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

It is respectfully submitted that Takahashi fails to teach or suggest all of the features of claim 1.

Claim 1 has been amended to further clarify that the oxidation agent containing iodine includes at least one selected from the group consisting of LiIO<sub>3</sub>, CaIO<sub>3</sub>, BaIO<sub>3</sub>, KI, and NH<sub>4</sub>I.

At the very least, Takahashi fails to teach or suggest “an oxidation agent containing iodine including at least one selected from the group consisting of  $\text{LiIO}_3$ ,  $\text{CaIO}_3$ ,  $\text{BaIO}_3$ ,  $\text{KI}$ , and  $\text{NH}_4\text{I}$ ”, as essentially recited in amended claim 1. Takahashi only generally mentions using an iodine-base etchant without producing any specific examples. (See paragraph [0132] of Takahashi) Consequently, Takahashi is completely silent regarding an oxidizing agent  $\text{LiIO}_3$ ,  $\text{CaIO}_3$ ,  $\text{BaIO}_3$ ,  $\text{KI}$ , and  $\text{NH}_4\text{I}$ , as recited in claim 1.

Moreover, it would not have been obvious to one skilled in the art to provide an oxidation agent containing iodine as recited in amended claim 1 with the cleaning solution of Takahashi for at least the reasons set forth below. For one, it is well established fact in the field of U.S. patent law that the chemical art is an unpredictable art. (See *In re Marzocchi*, 439 F.2d 220, 223-24, 169 USPQ 367, 368-70 (CCPA 1971) and 2164.03 of the MPEP) Even the slightest change in a compound may alter its chemical properties and reactive properties. Therefore, due to the unpredictability of chemical compounds and chemical reactions, it would not have been obvious to one skilled in the art to provide the specific oxidation agent containing iodine recited in amended claim 1 with a reasonable expectation of success. In addition, the teachings of Takahashi also fail to provide sufficient motivation to one skilled in the art to modify the Takahashi reference to include the specific oxidation agent containing iodine recited in amended claim 1. Pursuant to U.S. patent law, in order to modify a reference, there must be some teaching in the art regarding the desirability of doing so. (See MPEP 2143.01) However, the Takahashi reference fails to provide such a desirability or teaching. Rather, as mentioned, Takahashi only generally refers to using an iodine-base etchant without

any hint or suggestion as to the desirability of choosing the specific oxidation agents containing iodine recited in amended claim 1.

As claims 2 and 4 depend from and incorporate all of the limitations of claim 1, these dependent claims are likewise not obvious over the cited reference for the reasons given above.

Therefore, Applicants respectfully request that the Examiner withdraw the rejections of claims 1, 2 and 4 under 35 U.S.C § 103(a) as well as the objections to claims 3, 5 and 6.

(ii) **Claims 1 and 4 have been rejected under 35 U.S.C § 103 (a) as being unpatentable over Kwag et al. (US 6,140,233) in view of Ma et al. (US2003/0047539).**

As recognized by the Examiner, Kwag does not teach or suggest “an oxidation agent containing iodine including at least one selected from the group consisting of  $\text{LiIO}_3$ ,  $\text{CaIO}_3$ ,  $\text{BaIO}_3$ ,  $\text{KI}$ , and  $\text{NH}_4\text{I}$ ”, as essentially recited in amended claim 1. (See page 3 of the Final Office Action)

Further, Applicants respectfully submit that Ma does not teach or suggest “an oxidation agent containing iodine including at least one selected from the group consisting of  $\text{LiIO}_3$ ,  $\text{CaIO}_3$ ,  $\text{BaIO}_3$ ,  $\text{KI}$ , and  $\text{NH}_4\text{I}$ ”.

Thus, even assuming, *arguedo*, that Kwag and Ma were combined, this combination still fails to teach or suggest “an oxidation agent containing iodine including at least one selected from the group consisting of  $\text{LiIO}_3$ ,  $\text{CaIO}_3$ ,  $\text{BaIO}_3$ ,  $\text{KI}$ , and  $\text{NH}_4\text{I}$ ”, as essentially recited in amended claim 1.

Moreover, similar to the argument provided above, due to the unpredictability of chemical art, it would not have been obvious to one skilled in the art to provide the specific oxidation agent containing iodine recited in amended claim 1 with a reasonable expectation of success. In addition, the teachings of Ma also fail to provide sufficient motivation to one skilled in the art to modify the Ma reference to include the specific oxidation agent containing iodine recited in amended claim 1. Ma only mentions a single iodine-base etchant (i.e.,  $\text{NH}_4\text{IO}_3$ ) without any hint or suggestion as to the desirability of choosing the specific oxidation agent containing iodine recited in amended claim 1. (See **paragraph [0054] of Ma**)

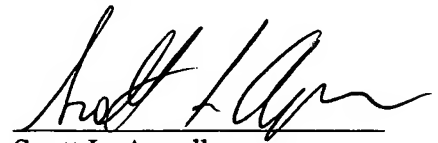
As claim 4 depends from and incorporates all of the limitations of claim 1, the dependent claim is likewise not obvious over the cited reference for the reasons given above.

Therefore, Applicants respectfully request that the Examiner withdraw the rejections of claims 1 and 4 under 35 U.S.C § 103(a) as well as the objections to claims 3, 5 and 6.

### III. CONCLUSION

For the foregoing reasons, the present application is believed to be in condition for allowance. The Examiner's early and favorable action is respectfully requested. The Examiner is invited to contact the undersigned if he has any questions or comments in this matter.

Respectfully submitted,



Scott L. Appelbaum  
Reg. No. 41,587  
Attorney for Applicant(s)

F. Chau & Associates, LLC  
130 Woodbury Road  
Woodbury, New York 11797  
TEL: (516) 692-8888  
FAX: (516) 692-8889